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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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EXAMINER

ROJAS, BERNARD

ART UNIT PAPER NUMBER

2832

DATE MAILED: 01/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/786,842 | Applicant(s) REYNOLDS, MICHAEL | |
| | Examiner Bernard Rojas | Art Unit 2832 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6, 8-10, 12, 13, 15, 18 and 20 is/are rejected.
- 7) ☒ Claim(s) 4, 7, 11, 14, 17 and 19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 8, 10, 12, 13, 15, 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirabayashi et al. [US 5,434,549].

Claim 1, Hirabayashi et al. discloses a magnetic force generator comprising a shell [1] internally defining an armature chamber having an axis [along 25]; at least two circumferential electric coils [2A, 2B, 2C] spaced axially within the chamber; an armature [3] supported in the chamber for reciprocation on the axis, the armature including at least two axially spaced permanent magnets [5A, 5B] mounted on an axially extending non-magnetic tube [figure 1]; resilient members [29] nominally centering the armature in the chamber; the permanent magnets extending axially, inwardly adjacent and in general alignment with the electric coils [figure 25]; the magnets having radially extending flux lines passing through the coils; and controlled energizing of the coils being operative on the permanent magnets to reciprocate the armature axially in a

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controlled manner relative to the shell to develop an opposite inertia force on the shell for application to a connected body [col. 15 lines 3-15].

Claim 2, Hirabayashi et al. discloses a magnetic force generator as in claim 1 wherein the magnets are cylindrical [col. 15 line 68 to col. 16 line 3 and col. 14 lines 64-70].

Claim 3, Hirabayashi et al. discloses a magnetic force generator as in claim 1 wherein the resilient members are compression springs [col. 15 lines 65-66].

Claim 5, Harms discloses a magnetic force generator as in claim 1 wherein the shell is formed of material that carries magnetic flux [col. 15 line 68 to col. 16 line 3 and col. 15 lines 10-15]

Claim 8, Hirabayashi et al. discloses a magnetic force generator as in claim 1 wherein the magnets are formed of a suitable magnetic material [rare earth permanent magnets col. 15 line 68 to col. 16 line 3 and col. 14 lines 64-70].

Claim 10, Hirabayashi et al. discloses a magnetic force generator as in claim 1 wherein the magnets are radially magnetized in opposite directions [figure 25].

Claim 12, Hirabayashi et al. discloses a magnetic force generator as in claim 1 wherein the axial length of the coils is generally similar to the axial length of the magnets [figure 25].

Claim 13, Hirabayashi et al. discloses a magnetic force generator comprising a shell [1] internally defining an armature chamber having an axis [along 25]; at least two circumferential electric coils [2A, 2B, 2C] spaced axially and fixed within the chamber; an armature [3] supported in the chamber for reciprocation on the axis, the armature

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including at least two axially spaced permanent magnets [5A, 5B] fixedly mounted on an axially extending non-magnetic tube [figure 1]; resilient members [29] nominally centering the armature in the chamber; the permanent magnets extending axially, inwardly adjacent and in general alignment with the electric coils [figure 25]; the magnets being radially magnetized and generating radially extending flux lines passing through the coils; and controlled energizing of the coils being operative on the permanent magnets to reciprocate the armature axially in a controlled manner relative to the shell to develop an opposite inertia force on the shell for application to a connected body [col. 15 lines 3-15].

Claim 15, Hirabayashi et al. discloses a magnetic force generator as in claim 13 wherein the shell is formed of material that carries magnetic flux [col. 15 line 68 to col. 16 line 3 and col. 15 lines 10-15].

Claim 18, Hirabayashi et al. a magnetic force generator as in claim 13 wherein the magnets are radially magnetized in opposite directions [figure 25].

Claim 20, Hirabayashi et al. discloses a magnetic force generator as in claim 13 wherein the axial length of the coils is generally similar to the axial length of the magnets [figure 25].

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

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were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirabayashi et al. [US 5,434,549].

Claim 6, Hirabayashi et al. discloses the claimed invention except for the use of a carbon steel shell. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use carbon steel over the steel shell disclosed by Harm in order to obtain the benefit of increased shell strength.

Claim 9, Hirabayashi et al. discloses the claimed invention except for using a ferrite magnetic material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to ferrite magnetic material for the magnets since it was known in the art to create magnets out of ferrite material.

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Allowable Subject Matter

Claims 4, 7, 11, 14, 17 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Rojas whose telephone number is (571) 272-1998. The examiner can normally be reached on M-F 8-4:00, every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bernard Rojas
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Enad
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